

## OmniEdge™ ULP Connector



### OVERVIEW

In order to meet higher density demand in networking equipment and server, Luxshare-TECH develops OmniEdge™ ULP as a new interconnection system including connector and cable assemblies to support higher signal transmission, which can be used in application of 24Gbps SAS signal or 16GT/s PCIe signal. Besides, it also can support the 56GT/s PAM4.

Ultra Low Profile OmniEdge™ (ULP) solutions with 0.6mm contact pitch is one of the smallest connectors for high speed Interconnected technology in current market, which is designed and developed independently by Luxshare-TECH. It can save much space in end device and even can be placed under the heat sink on ASIC, because the height of the mated connector is less than 4mm.

OmniEdge™ ULP uses double drain raw cable that has smaller size and good bend performance. Luxshare-TECH can supply 8i, connector and cable assembly, and also can provide customized type, as 4i, 12i with sideband and so on.

### FEATURES & BENEFITS

- ◆ Support cable to board application: 0.8mm PCB card thickness
- ◆ Multiple channels are optional: 8i and 12i are available for different application
- ◆ Small size design with great robustness : Pitch 0.6mm connector and max 25N wrenching test
- ◆ Excellent SI performance: Signal rates up to PCIe4 16GT/s, SAS 4.0 24Gbps and 56GT/s PAM4
- ◆ Compatible with diverse industry standards and protocols including SAS, PCIe
- ◆ Straight and customization cable plug are optional
- ◆ 85 ohm and 92 ohm impedances are optional
- ◆ RoHS compliant. Halogen free is available on request

### PRODUCT APPLICATIONS

#### DATA

Servers  
RAID System  
Storage Racks  
HBA Interfaces

#### COMMUNICATIONS

Switches

### INDUSTRY STANDARDS

Independent research and development of Luxshare-TECH  
SAS 3.0 / 4.0(24Gbps)  
PCIe Gen 3 / Gen 4(16GT/s)  
56GT/s PAM4

# OmniEdge™ ULP Connector

## TECHNICAL INFORMATION

### MATERIAL

Contact: Copper Alloy  
Contact Area Finish: Gold Over Nickel  
Solder Area Finish: Gold Over Nickel  
Housing: High temperature thermoplastic(UL 94V-0)

### ELECTRICAL PERFORMANCE

Voltage: 30V AC/DC max  
Current: 0.5A MAX per contact

### ENVIRONMENTAL

Operating temperature : 0°C TO +80°C

### Partial PN Table

Product Numbers	Product Description
PCEB82-6300-000-1H	CHIP END 12X Connector,82Pin,SMT,Au 30u"
PCEB50-6300-000-1H	CHIP END 8X Connector,50Pin,SMT,Au 30u"

### MECHANICAL PERFORMANCE

Rated Durability Cycles: 50  
Mating Force: 0.8N/pin MAX  
Unmating Force: 0.6N/pin MIN

### PACKAGING

Tape & Reel

### SPECIFICATION

ES-11-00-0019